



PTO/SB/21 (09-04)

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**TRANSMITTAL  
FORM**

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Total Number of Pages in This Submission

Application Number	10/759,519
Filing Date	January 16, 2004
First Named Inventor	Charles R. Cantor and Chunming Ding
Art Unit	1645
Examiner Name	To be assigned
Attorney Docket Number	701586-053651

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): COPY - References C1-C30; Information Disclosure Statement, including Form 1449, Certificate of Mailing; and Return Receipt Postcard
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**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name	NIXON PEABODY LLP, 100 Summer Street, Boston, MA 02110		
Signature			
Printed name	Ronald I. Eisenstein/Leena H. Karttunen		
Date	11/17/2005	Reg. No.	30,628/L0207

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Practitioner's Docket No. 701586-53651

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Charles R. Cantor and Chunming Ding  
Application No.: 10/759,519  
Filed: January 16, 2004  
Title: HAPLOTYPE ANALYSIS

Group No.: 1645  
Examiner: To be assigned

MAIL STOP AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. § 1.8(a) and 1.10)

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2. Transmittal Form (1 pg.);
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Date: November 12, 2005

  
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CATHERINE KEARNS  
(type or print name of person certifying)



Docket No.: 701586-53651

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Charles R. Cantor and Chunming Ding

EXAMINER: To be assigned

SERIAL NO.: 10/759,519

GROUP: 1645

FILED: January 16, 2004

FOR: HAPLOTYPE ANALYSIS

MAIL STOP AMENDMENT

Commissioner for Patents

P. O. Box 1450


Alexandria, VA 22313-1450

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Date: 11/17/05

  
Signature of person mailing paper or fee

\*\*\*\*\*

Sir:

INFORMATION DISCLOSURE STATEMENT

In accordance with the provisions of 37 C.F.R. §§1.56 and 1.97, Applicants herewith submit the publications and/or patents shown on the attached form PTO-1449, for consideration by the Examiner in connection with the examination of the above-identified patent application.

REMARKS

In accordance with the provisions of 37 C.F.R. §1.97, this statement is being filed:

- X (1) within three (3) months of the Filing Date or **before the mailing date of the First Office Action** on the merits; or
- (2) within three months of the mailing date of the PCT International Search Report;  
or
- (3) after the period defined in (1) but before the mailing date of a **Final Rejection** or **Notice of Allowance**, and the requisite Certification or fee under Rule 1.17(p), namely **\$180.00**, is included herein; or

— (4) after the mailing date of a **Final Rejection** or **Notice of Allowance** but before the payment of the **Issue Fee**, and the requisite Certification, petition, and petition fee are included herein.

It is respectfully requested that each of the documents shown on the attached form(s) PTO-1449 be made of record in this application. Copies of these documents:

X are enclosed herewith;  
— have been cited in the parent international application, and are thus not being resubmitted herein;

A copy of the International Search Report from its corresponding application, \_\_\_\_\_, is also enclosed herewith.

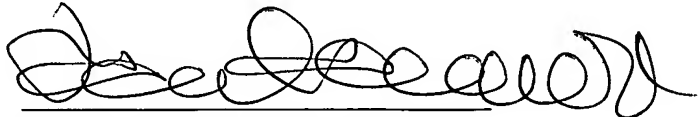
Early examination and allowance of the present application are respectfully solicited.

#### **FEE AUTHORIZATION**

Should any fees associated with the submission be required, the Commissioner is authorized to charge the missing fee to Nixon Peabody LLP Deposit Account No. 50-0850. Any overpayments should be credited to said Deposit Account.

Respectfully submitted,

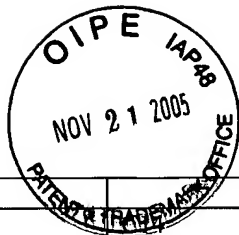
Date: 11/17/2005



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<b>FORM PTO-1449</b>				DOCKET NO.: 701586-053651		SERIAL NO.: 10/759,519	
<b>INFORMATION DISCLOSURE STATEMENT</b>				APPLICANT(S): Charles R. Cantor and Chunming Ding			
				FILING DATE: January 16, 2004		GROUP NO.: 1645	
<b>UNITED STATES PATENT DOCUMENTS</b>							
<b>EXAM. INITIALS</b>		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>INVENTOR/ASSIGNEE</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>FILING DATE IF APPROPRIATE</b>
<b>FOREIGN PATENT DOCUMENTS</b>							
		<b>DOCUMENT NUMBER</b>	<b>DATE</b>	<b>COUNTRY</b>	<b>CLASS</b>	<b>SUBCLASS</b>	<b>TRANSLATION YES/NO</b>
<b>OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)</b>							
	C1	Barnes (1994) Proc. Natl. Acad. Sci. USA 91:2216-2220					
	C2	Clark, A.G. Inference of haplotypes from PCR-amplified samples of diploid populations. Mol Biol Evol 7, 111-22. (1990).					
	C3	Collins et al. (1997) Science 278, 1580-81					
	C4	Conner et al. (1983) Proc. Natl. Acad. Sci. USA 80:278-282					
	C5	Daly, M.J., Rioux, J.D., Schaffner, S.F., Hudson, T.J. & Lander, E.S. High-resolution haplotype structure in the human genome. Nat Genet 29, 229-32. (2001).					
	C6	Douglas, J.A., Boehnke, M., Gillanders, E., Trent, J.M. & Gruber, S.B. Experimentally-derived haplotypes substantially increase the efficiency of linkage disequilibrium studies. Nat Genet 28, 361-4. (2001).					
	C7	Drysdale et al. (2000) Proc. Natl. Acad. Sci. 97:10483-8					
	C8	Evans and Relling (1999) Science 286:487-491					
	C9	Gabriel, S.B. et al. The structure of haplotype blocks in the human genome. Science 296, 2225-9. (2002).					
	C10	Grupe, A. et al. In silico mapping of complex disease-related traits in mice. Science 292, 1915-8. (2001).					
	C11	Hirschhorn, J.N., Lohmueller, K., Byrne, E. & Hirschhorn, K. A comprehensive review of genetic association studies. Genet Med 4, 45-61. (2002).					
	C12	Hodge et al. (1999) Nature Genet. 21:360-361					
	C13	Judson, R., Stephens, J.C. & Windemuth, A. The predictive power of haplotypes in clinical response. Pharmacogenomics 1, 15-26. (2000).					



		Kruglyak, L. Prospects for whole-genome linkage disequilibrium mapping of common disease genes. Nat Genet 22, 139-44. (1999).
	C15	Krynetski and Evans (1998) Am. J. Hum. Gen. 63:11-16
	C16	Martin, E.R. et al. Analysis of association at single nucleotide polymorphisms in the APOE region. Genomics 63, 7-12. (2000).
	C17	Michalatos-Beloin et al. (1996) Nucleic Acids Res. 24:4841-4843
	C18	Nickerson et al. (1990) Proc. Natl. Acad. Sci. USA 87:8923-8927
	C19	Orita et al. (1989) Proc. Natl. Acad. Sci. USA 86:2766-2770
	C20	Papadopoulos et al. (1995) Nature Genet. 11:99-102
	C21	Prior et al. (1995) Hum. Mutat. 5:263-268
	C22	Ruano and Kidd (1989) Nucleic Acids Res. 17:8392
	C23	Ruano and Kidd (1991) Nucleic Acids Res. 19:6877-6882
	C24	Ruano et al. (1990) Proc. Natl. Acad. Sci. USA 87:6296-6300
	C25	Shields and Harris (2000) J. Clin. Onc. 18:2309-2316
	C26	Stephens, J.C., Rogers, J. & Ruano, G. Theoretical underpinning of the single-molecule-dilution (SMD) method of direct haplotype resolution. Am J Hum Genet 46, 1149-55. (1990).
	C27	Stephens, M., Smith, N.J. & Donnelly, P. A new statistical method for haplotype reconstruction from population data. Am J Hum Genet 68, 978-89. (2001).
	C28	Templeton, A.R., Sing, C.F., Kessling, A. & Humphries, S. A cladistic analysis of phenotype associations with haplotypes inferred from restriction endonuclease mapping. II. The analysis of natural populations. Genetics 120, 1145-54. (1988).
	C29	Woolley et al. (2000) Nature Biotech. 18:760-763
	C30	Zhang, S., Pakstis, A.J., Kidd, K.K. & Zhao, H. Comparisons of two methods for haplotype reconstruction and haplotype frequency estimation from population data. Am J Hum Genet 69, 906-14. (2001).